

REMARKS

Status of Application

Claims 1-4, 6-10 and 14-16 were pending in this application. In the Office Action mailed May 28, 2009, claims 1-4, 6-10 and 14-16 were rejected.

By this amendment, claims 1-4, 6-10 and 14-16 are pending as currently amended or previously presented. Claim 17 is new and follows claim 15. No new matter is introduced by these amendments, which are fully supported by the specification. Applicant requests reconsideration and allowance of claims 1-4, 6-10 and 14-16, and consideration of claim 17.

Applicant reserves the right to prosecute any withdrawn, cancelled, or non-elected claims and/or subject matter in separate applications.

35 U.S.C. § 102 Rejections

Claims 1-4, 7, 8, 15 and 16 were rejected as anticipated by Zarkh et al. (US 2008/0247621 A1). In brief, among other things, the Examiner stated that Zarkh et al. disclose “means for obtaining images with assistance of gating capabilities, which inherently includes “temporal” integration. (See Office Action at page 3, lines 10-11)

While not acquiescing to the Examiner’s identification of other features of Applicants’ claimed invention, Applicant respectfully submits that Zarkh et al. does not disclose “temporal integration means for averaging pixel intensity over several images for enhancing line-like structures and blurring the background,” as claimed in claim 1 as amended.

In particular, Zarkh et al. disclose using only a “highest correlated frame” or “single current image” for correlating with the reference. (Zarkh et al., paragraph 0032, right col., lines 15-19, paragraph 0037, lines 2-3) Thus, Zarkh et al. do not disclose “averaging pixel intensity over several images,” as claimed in claim 1 as amended.

Further, Zarkh et al. disclose the “gated frame” as being the “highest correlated frame” and do not disclose gating in any other manner. (Zarkh et al., paragraph 0032, right col., line 18) Thus, the Examiner’s inference that gating inherently includes integrating is inappropriate here. For Zarkh et al., gating refers to stroboscopically picking a single image based on an ECG signal. Zarkh et al. do not disclose integrating images.

Moreover, Zarkh et al. do not disclose to “deliver diluted contrast agent into the blood vessel over a period of a few minutes,” as claimed in claim 1 as amended.

Claims 2-4, 6-10 and 14 depend eventually from claim 1. For the same reasons as discussed above, these claims are not anticipated by Zarkh et al. Claims 15-17 are also not anticipated by Zarkh et al.

Thus, because Zarkh et al. do not disclose all limitations of Applicants' inventions, these rejections can be withdrawn.

35 U.S.C. § 103 Rejections

Claim 6 was rejected as being unpatentable over Zarkh et al. in view of Mo (US 6,413,217). In brief, among other things, the Examiner stated that Mo discloses a zoom mode. Claims 9 and 10 were rejected as being unpatentable over Zarkh et al. in view of Webler (US 2007/0055142). In brief, among other things, the Examiner stated that Webler discloses displaying images of a ROI with a cardiac parameter.

While not acquiescing to the Examiner's identification of any features of Applicants' claimed invention, Applicant respectfully submits that claims 6, 9 and 10 depend from claim 1 and are patentable over the cited references. None of Zarkh et al., Mo, and Webler, either alone or in any combination, disclose or suggest all the limitations of Applicants' claim 1 as amended. In particular, neither Mo nor Webler disclose or suggest delivering a "diluted contrast agent into the blood vessel over a period of a few minutes," as claimed by Applicants.

CONCLUSION

Applicants respectfully submit that claims 1-4, 6-10 and 14-17 distinguish patentably from the references of record and are in condition for allowance. Should any questions remain, Examiner is invited to telephone Applicant's representative at the number provided.

Respectfully submitted,

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